Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled).

Claim 2 (currently amended): A method of generating a CRC for a composite sub-message based on a CRC generating polynomial having at least two factors, the composite sub-message including sub-message data and a number, n, of trailing zeros, the method comprising:

generating a first remainder based on the sub-message data and a first factor of the CRC generating polynomial;

generating a second remainder based on the sub-message data and a second factor of the CRC generating polynomial;

~~The method of claim 1, and further comprising:~~

adjusting at least one of the first and the second remainders based on the number, n, of trailing zeros in the composite sub-message; and

generating the CRC for the composite sub-message based on adjusted versions of the first and the second remainders.

Claim 3 (original): The method of claim 2, wherein the first remainder is an m-bit remainder, and wherein the adjusting step comprises:

storing the first remainder in an m-bit memory location;

examining each bit of N, where N equals n mod (2.sup.m-1); and

selectively advancing the contents of the m-bit memory location to a next state based on a value of each bit of N, the next state determined by a Galois field defined by the first factor.

Claim 4 (original): The method of claim 3, wherein the second remainder is adjusted in substantially the same manner as the first remainder.

Claim 5 (original): The method of claim 2, wherein the first remainder is an m-bit remainder, and wherein the adjusting step comprises:

storing the first remainder in an m-bit memory location; and

examining each bit of N, where N equals n mod (2.sup.m-1), in order from a most significant bit to a least significant bit; the examining act for each examined bit comprising:

finite field squaring the contents of the m-bit memory location, and;

if the examined bit equals one, advancing the contents of the m-bit memory location to a next state as determined by a Galois field defined by the first factor.

Claim 6 (original): The method of claim 5, wherein the second remainder is adjusted in substantially the same manner as the first remainder.

Claim 7 (currently amended): The method of claim [[1]] 2, wherein the step of generating a first remainder comprises: dividing the sub-message data by the first factor.

Claim 8 (original): The method of claim 7, wherein the step of generating a second remainder comprises:

dividing the sub-message data by the second factor.

Claim 9 (currently amended): A method of generating a CRC for a composite sub-message based on a CRC generating polynomial having at least two factors, the composite sub-message including sub-message data and a number, n, of trailing zeros, the method comprising:

generating a first remainder based on the sub-message data and a first factor of the CRC generating polynomial, ~~The method of claim 1,~~ wherein the step of generating a first remainder comprises:

dividing the sub-message data by the CRC generating polynomial, thereby generating an unadjusted composite remainder; and

dividing the unadjusted composite remainder by the first factor, thereby generating the first remainder;

generating a second remainder based on the sub-message data and a second factor of the

CRC generating polynomial; and

generating the CRC for the composite sub-message based on adjusted versions of the first and the second remainders.

Claim 10 (original): The method of claim 9, wherein the step of generating a second remainder comprises:

dividing the unadjusted composite remainder by the second factor, thereby generating the second remainder.

Claim 11 (currently amended): The method of claim [[1]] 2, wherein the step of generating the CRC comprises mapping the adjusted versions of the first and the second remainders to a corresponding CRC.

Claim 12 (original): The method of claim 11, wherein the mapping is performed with a fixed logic circuit.

Claim 13 (currently amended): The method of claim [[1]] 2, wherein the first and the second factors are primitive polynomials.

Claim 14 (currently amended): The method of claim [[1]] 2, wherein the first and the second factors are irreducible polynomials.

Claim 15 (canceled).

Claim 16 (withdrawn): A method of generating a CRC for a composite sub-message based on a CRC generating polynomial having at least two factors, the composite sub-message including sub-message data and a number, n, of trailing zeros, the method comprising:

generating an unadjusted composite remainder representing a remainder of a division of the sub-message data by the CRC generating polynomial;

generating a first factor remainder representing a remainder of a division of the unadjusted composite remainder by a first factor of the CRC generating polynomial;

~~The method of claim 15, and further comprising:~~

generating the adjusted version of the first factor remainder based on the number, n, of trailing zeros in the composite sub-message using finite field squaring and advancing

states in a Galois field defined by the first factor;

generating a second factor remainder representing a remainder of a division of the unadjusted composite remainder by a second factor of the CRC generating polynomial; and

generating the CRC for the composite sub-message based on adjusted versions of the first factor remainder and the second factor remainder.

Claim 17 (withdrawn): The method of claim 15, wherein the second factor is x+1, the method further comprising:

generating the adjusted version of the second factor remainder based on a parity computation of the unadjusted composite remainder.

Claim 18 (original): The method of claim 15, wherein the second factor is x+1, and wherein the CRC generating polynomial has an order of R, and wherein the step of generating a first factor remainder comprises:

testing a most significant bit of the unadjusted composite remainder;

setting the first factor remainder equal to the R-1 least significant bits of the unadjusted composite remainder if the tested bit is equal to zero; and

setting the first factor remainder equal to the R-1 least significant bits of a result of an XOR of the unadjusted composite remainder and the first factor if the tested bit is equal to one.

Claim 19 (canceled).

Claim 20 (original): A method of generating a CRC for a composite sub-message based on a CRC generating polynomial having at least two factors, the composite sub-message including sub-message data and a number, n, of trailing zeros, the method comprising:

generating a first factor remainder representing a remainder of a division of the sub-message data by a first factor of the CRC generating polynomial;

generating a second factor remainder representing a remainder of a division of the sub-message data by a second factor of the CRC generating polynomial;

~~The method of claim 19, and further comprising:~~

adjusting at least one of the first factor remainder and the second factor remainder based on the number, n, of trailing zeros in the composite sub-message using finite field squaring and advancing states in at least one Galois field defined by at least one of the first and the second factors; and

generating the CRC for the composite sub-message based on adjusted versions of the first factor remainder and the second factor remainder.